

CLAIMS:

1. A record carrier (10) having a plurality of stacked layers (12, 14, 16, 18) comprising at least one colored pixel pattern layer (14) and at least one mask layer (18) on top of at least a region of the colored pixel pattern layer, the optical transparency of a region of the mask layer changing by applying heat by a laser beam (24) to the region of the mask layer, characterized in that at least one thermal barrier layer (16) is provided between the colored pixel pattern layer and the mask layer.
2. The record carrier according to claim 1, wherein the plurality of stacked layers (12, 14, 16, 18) comprises a substrate (12) on top of which the colored pixel pattern layer (14), the thermal barrier layer (16) and the mask layer (18) are arranged, and wherein the substrate (12) comprises grooves for tracking purposes.
3. The record carrier according to claim 1, wherein the colored pixels are at least partly aligned with the grooves.
4. The record carrier according to claim 1, wherein calibration apertures are provided in the mask layer.
5. The record carrier according to claim 1, wherein the sequence of layers is (a) substrate, (b) colored pixel pattern layer, (c) thermal barrier layer, and (d) mask layer.
6. The record carrier according to claim 1, wherein the sequence of layers is (a) substrate, (b) mask layer, (c) thermal barrier layer, and (d) colored pixel pattern layer.
7. The record carrier according to claim 1, wherein the thermal barrier layer (16) comprises a material from the group of ZnS-SiO₂, SiC, Si₃N₄, Al₂O₃.
8. The record carrier according to claim 1, wherein the mask layer (18) comprises a thermo-chromic material.

9. The record carrier according to claim 8, wherein the mask layer (18) comprises a material from the group of AgO and poly(3,4-ethylenedioxythiophene).

5 10. The record carrier according to claim 1, wherein the mask layer (18) comprises organic dyes.

11. The record carrier according to claim 1, wherein the mask layer (18) comprises a material that undergoes a phase transition upon heating.

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12. The record carrier according to claim 1, wherein the mask layer comprises a dual layer system that mixes upon heating, thereby changing the transparency.

13. A method of recording an image on a record carrier (10), the record carrier
15 having a plurality of stacked layers (12, 14, 16, 18) comprising at least one colored pixel pattern layer (14) and at least one mask layer (18) on top of at least a region of the colored pixel pattern layer, the optical transparency of a region of the mask layer changing by applying heat by a laser beam to the region of the mask layer, characterized in that at least one thermal barrier layer (16) is provided between the colored pixel pattern layer and the
20 mask layer.

14. The method according to claim 13, wherein a defocused laser beam provided in an optical recorder is used.

25 15. An optical recorder for recording an image on a record carrier according to any of claims 1 to 12.